STOREHOUSE OFFER COLLECTING SYSTEM

Background of the Invention

1. Field of the Invention

5   The present invention relates to a system and
a method for collecting offers of storehouses for
storing products and parts and determining one of the
offers.

10 2. Description of the Related Art

         Conventionally, when offers of rental
storehouses are collected for the storage of products
and parts, estimates are collected from rental
storehouse companies. A few companies are selected
15 based on the estimates near a collection condition,
and a final rental storehouse company is determined
through the presentations.

         However, in the above offer collecting
scheme, the formats of estimates are different every
20 company and it excessively took the time to find where
a requested item of the collection condition is
written. Also, in the presentation, an essential
point of the offer became ambiguous because each
offering company emphasizes individual point. As a
25 result, a disadvantage occurred for both of the
offering companies and the collecting company.

         An open collecting method of a factory is

disclosed in Japanese Laid Open Patent Application
(JP-P2002-366611A). In this conventional example,
predetermined conditions are previously set, and
collection is carried out through a network. One of
5 offers that meets all or most of the predetermined
conditions is chosen.

However, in case of the collection of a
storehouse for storage of products and parts, the
collection conditions over a wide range and it is
10 difficult to choose one of the offers which meets all
of the conditions. Therefore, it is impossible to
collect offers of storehouses through the network in
the conventional example.

15 **Summary of the Invention**

An object of the present invention is to
provide a method for collecting offers of storehouses
system and a system using the same, in which a
storehouse for storage of products and parts can be
20 collected through a network.

Another object of the present invention is to
provide a method for collecting offers of storehouses
system and a system using the same, in which the
offers can be selected automatically based on internal
25 conditions.

Another object of the present invention is to
provide a method for collecting offers of storehouses

system and a system using the same, in which whether a business relating to the storage of products and parts is possible can be checked.

Another object of the present invention is to
5 provide a method for collecting offers of storehouses system and a system using the same, in which an optimal storehouse can be selected based on numerical data and image data.

In an aspect of the present invention, an
10 offer collecting system for a desired storehouse for keeping products and parts, includes a server connected with a network and a storage section and a server display unit; a plurality of offerer terminals connected with the network; and an offer collection
15 terminal connected with the server directly or through the network and having a terminal display unit. The offer collection terminal sets first and second collection condition sets in the storage section of the server. The server produces a storehouse offer
20 collection display based on the first collection condition set to provide to the plurality of offerer terminals by displaying the storehouse offer collection display on the server display unit and stores offer data from each of the plurality of
25 offerer terminals in the storage section. Also, the server compares the offer data from each of the plurality of offerer terminals with the second

collection condition set, and determines the offer

data meeting the second collection condition set as

offer data candidates, and outputs the offer data

candidates to the offer collection terminal. The

5   offer collection terminal displays the offer data

candidates and selects one of the offer data

candidates and determines the desired storehouse for

keeping the products and parts corresponding to the

selected offer data candidate.

10   Here, the offer data may include numerical

data and image data. In this case, the server may

output the offer data candidates to the offer

collection terminal such that the numerical data of

each of the offer data candidates is displayed on the

15   terminal display unit in a list form and the image

data of each of the offer data candidates is displayed

as an image on the terminal display unit.

          Also, the storehouse offer collection display

may contain a plurality of input screens to input data

20   for different items of the first collection condition

set.

          Also, the first collection condition set may

include whether an offer of each of the plurality of

offer terminals can provide a distribution service.

25   In this case, the offer collecting system may further

include a distribution center terminal associated with

the selected offer data candidate and connected with

the network. The offer collection terminal orders

transportation of the products and parts to the

determined storehouse to the distribution center

terminal, and the products and parts are transported

5   by a truck to the determined storehouse based on an

instruction from the distribution center terminal.

Also, the offer collection terminal may

change the second collection condition set, and the

server carries out the comparison, the determination

10   and the output of the offer data candidates once again

based on the changed second collection condition set.

Also, the server may transmit an offer

reception notice to the offer collection terminal in

response to the determination of the offer data

15   candidate, and the offer collection terminal may issue

an output instruction in response to the offer

reception notice. At this time, the server outputs

the offer data candidates to the offer collection

terminal in response to the output instruction from

20   the offer collection terminal.

In another aspect of the present invention, a

software product readable by a computer to execute

processing may include a function of providing a

storehouse collection display based on a first

25   collection condition set from an offer collection

terminal; a function of receiving offer data and

storing in a database; a function of comparing the

offer data with a second collection condition set, when the offer data is received from each of a plurality of offerer terminals; a function of determining the offer data meeting the second

5   collection condition set as an offer data candidate; and a function of outputting the offer data candidates to the offer collection terminal. Thereby, one of the offer data candidates is selected as a selected storehouse by the offer collection terminal.

10   Here, the offer data may include numerical data and image data. In this case, the function of outputting may include outputting the offer data candidates to the offer collection terminal such that the numerical data of the offer data candidates are

15   displayed on the offer collection terminal in a list form and the image data of a selected one of the offer data candidates is displayed on the offer collection terminal.

          Also, the software product may further

20   include a function of transmitting an offer notice to the offer collection terminal in response to the determination of the offer data candidates. In this case, the first collection condition set may include whether an offer of each of the plurality of offer

25   terminals can provide a distribution service.

Brief Description of the Drawings

Fig. 1 is a block diagram showing the structure of a storehouse offer collecting system of the present invention;

5   Fig. 2 is a diagram showing the structure of a server and a collection terminal in the storehouse offer collecting system of the present invention in detail;

Fig. 3 is a flow chart showing a flow from a 10 storehouse collection start to a check start of the application in the storehouse offer collecting system of the present invention;

Figs. 4A to 4F are diagrams showing first to eighth collection screens in the storehouse offer 15 collecting system of the present invention;

Figs. 5A and 5B are diagrams showing output screens in the storehouse offer collecting system of the present invention;

Fig. 6 is a diagram showing storehouse data 20 stored in a data base of the server; and

Fig. 7 is a diagram showing reference data stored in a database of the server.

Description of the Preferred Embodiments

25   Hereinafter, a storehouse offer collecting system of the present invention will be described in detail with reference to the attached drawings.

Fig. 1 is a block diagram showing the configuration of the storehouse offer collecting system according to an embodiment of the present invention. Referring to Fig. 1, the storehouse offer

5   collecting system in this embodiment is composed of a server 1, an offer collection terminal 2, offerer terminals 3, a mobile terminal 5, and a distribution center terminal 6 associated with an offerer, and they are connected by a network 4 such as the Internet.

10   The offer collection terminal 2 is an information terminal like a personal computer which is connected with the server 1 directly or through the network 4. The offer collection terminal 2 can communicate with the server 1 to set reference data to

15   the server 1 and to issue various instructions to the server 1. The offer collection terminal 2 has a display unit (not shown) and displays storehouse data outputted from the server 1 on the display unit when receiving an offer notice using an E-mail from the

20   server 1.

Each offerer terminal 3 is an information terminal like a personal computer. The offerer terminal 3 has a display unit (not shown) and accesses a collection Web page of the server 1 through the

25   network 4 and displays it on the display unit. An offerer inputs offer storehouse data into the collection Web page using the offerer terminal 3.

The mobile terminal 5 receives the offer notice transmitted from the server 1 when the offer collection terminal 2 cannot be used, and displays the storehouse data outputted from the server 1.

5   The server 1 is an information terminal like a personal computer or the like. Referring to Fig. 2, the server 1 is composed of a processing section 10, a storage section 12 and a display section 14. The storage section 12 has a storehouse database which

10   stores offer data and a reference database which stores reference data.

The storehouse database stores offer data offered through the network 4 every offerer. In detail, referring to Fig. 6, the offer data contains

15   items of a name and address of the offerer and a location of the storehouse and storehouse data 30. Also, the storehouse data 30 contains geographical data 32, site data 34, storage data 36 and peripheral business data 37. These data are stored separately

20   but are linked to the offerer. Moreover, the storehouse data 30 contains image data 38 of the storehouse.

The geographical data 32 contains a distance and a required time from an airport to a rental

25   storehouse of the offerer, a distance and a required time from a port to the rental storehouse of the offerer, a distance and a required time from a

specific point in X city to the renal storehouse, and
a distance and a required time from a specific point
in Y city to the rental storehouse. The site data 34
contains the size of the site of the rental storehouse
5   of the offerer. The storage data 36 contains items of
the size and building height of the storehouse, the
interval between pillars and a permission load. The
peripheral business data 37 contains data indicative
of whether the offerer can carry out distribution
10   business of products or parts to be stored in the
storehouse.

Referring to Fig. 7, the reference data
contains a determination value set and a desired value
set to the same items as those of the storehouse data.
15   The determination value set and the desired value set
are set from the offer collection terminal 2 by a
collector. The desired value set is used to provide a
hope of the collector. By setting the desired value
set, it is possible to simply determine whether the
20   site of the storehouse and the capacity of the
storehouse are smaller or larger than a desired site
and a desired capacity. The determination value set
is compared with the offer data to determine the offer
data. The offer data which does not meet the
25   determination value set can be automatically removed
from an offer data candidate. The determination value
set does not have to be always set. When the

determination value set is not set, all the offer data
are selected as the offer data candidates.

Also, the collector only shows the desired
value set and can carry out collection of the offers
5   without exhibiting the determination value set. The
optional change of the determination value set and the
desired value set is possible and the collector can
limit the candidates from the offer data by changing
the determination value set and the desired value set.
10   The processing section 10 of the server 1 has
an output processing section 20, a Web page generating
and updating section 22, a determination section 24
and a storage and notice section 26. The Web page
generating and updating section 22 reads the reference
15   data 40 from the storage section 12 and generates a
Web page with a HTML file format to be exhibited onto
the Internet automatically based on the desired value
set of the read reference data.

The storage and notice section 26 stores the
20   offer data from each of the offer terminals 3 in the
storehouse database of the storage section 12 when
there is an offer to the collection for the
storehouse, and notifies reception of the offer to the
offer collection terminal 2.
25   The determination section 24 reads the offer
data containing the storehouse data every offerer from
the storehouse database and the reference data from

the reference database, compares the read storehouse data and the determination value set of the reference data. When the storehouse data is determined to be not contained in a range set based on the

5   determination value set of the reference data, the offer data is determined to be not a candidate. The offer data determined to be not the candidate is stored as simple storehouse data.

The output processing section 20 selects one

10   of the output forms of the storehouse data in response to a form selection instruction from the terminal 2 and outputs the storehouse data in the selected form to the offer collection terminal 2. Also, the output processing section 20 displays the offer data on the

15   display section 14 in a list form or an image form, in the same way. As shown in Figs. 5A and 5B, numerical data such as the geographical data, the site data, the storage storehouse data of the storehouse data 30 are displayed in the list form on the display section 14

20   and the image data 38 is displayed as a virtual image. The list form and the virtual form can be switched mutually.

Next, an operation of the storehouse offer collecting system according to the embodiment of the

25   present invention will be described. At a step S300 of Fig. 3, the collector determines the desired value set as collection conditions of the rental storehouse

using the offer collection terminal 2 when the
storehouse is necessary newly with the change of the
business contents and so on. Also, the collector
determines the determination value set. Then, the

5   desired value set and the determination value set are
set in the storage section 12. Thereafter, a page
generation instruction is issued from the offer
collection terminal 2 by the collector. The Web page
generating and updating process section 22 generates a

10 Web page for the collection of a rental storehouse in
response to the page generation instruction and
provide it on the Internet. In this way, the
collection is started. The input items requested from
the collector are described on the first page of the

15 storehouse collection Web page.

At a step S302, URL of the Web page for the
storehouse collection is provided on a home page on
the Internet managed by the collector or is informed
to offerers relating the collection through

20 publications. Also, the offer collection terminal 2
uses an E-mail to notify it directly to the offerers
whose addresses re known.

At a step S304, when viewing the URL or
receiving a notice by the E-mail, each of the offerers

25 accesses the Web page for the storehouse collection.
The offerer can prepare the storehouse data previously
by referring to the first page of the Web page for the

storehouse collection. Also, the offer data to be inputted on the collection Web page contains the geographical data 32, the site data 34, the storage storehouse data 36, the peripheral business data 37

5 and the image data 38 showing the outward appearance of the storehouse. Since the input items requested from the collector are written to the first page of the collection Web page, the confusion of the offerer can be prevented.

10 At a step S306, the offerer inputs the requested offer data in accordance with the guidance of the screens. For example, as shown in Fig. 4A, a name and address of the offerer are first requested. Then, the offer data are requested in accordance with

15 the items corresponding to the desired value set, as shown in Fig. 4B. Subsequently, a file name and size of image data of the storehouse are requested, as shown in Fig. 4C, and the image data is inputted, as shown in Fig. 4D. Then, data indicative of the inside

20 of the storehouse is requested, as shown in Fig. 4E. Thereafter, when the whole of offer data is inputted, the offer is ended, as shown in Fig. 4F. In this way, the input screens are different for each group of items and the whole storehouse data can be inputted on

25 the Web page in accordance with the guidance. In case of input of the offer data on the screen, it is not possible to proceed to the next screen if the offerer

does not input the data which is indispensable to the collector. Thus, it is possible to prevent lack of necessary information. Also, as shown in Figs. 4D and 4E, because the building size is inputted using the

5   image data displayed on the screen, it is possible to prevent an input mistake. Moreover, when the collection is carried out in an area where the language different from that of the collector uses is used, the input mistake based on the linguistic

10 difference can be prevented. If all the input items are filled, the inputted offer data is transmitted to the server 1.

At a step S308, the offer data transmitted from the offerer terminal 3 to the server 1 is stored

15 in the storage section 12 for every offerer. After that, the determination section 24 reads out the determination value set of the reference data 40 and the storehouse data 30 for every offerer from the storage section 12 and compares with them each other.

20 The determination section 24 determines whether the storehouse data is inside the range of the determination value set of the reference data.

At a step 310, when the storehouse data is determined to be outside the range, the determination

25 section 24 determines that the storehouse data is not the candidate. In this case, the storage section 26 stores the offer data containing the storehouse data

as usual storehouse data in the storage section 12 separately from the storehouse data candidate.

At a step S312, when the storehouse data is inside the range of the determination value set of the

5 reference data, the determination section 24 determines that the storehouse data is a candidate. The offer data candidate is stored in a candidate area of the storage section 12.

At a step S314, when the storehouse data is

10 determined to be inside of the range by the determination section 24, the notice section 26 issues a notice to the offer collection terminal 2 to show the reception of a new offer.

At a step S316, the offer collection terminal

15 2 accesses the server 1 in response to the notice and transmits an output instruction to the server 1. The server 1 transmits the offer data containing the storehouse data in the list form or the image form to the offer collection terminal 2 in response to the

20 output instruction. Thus, the offer data is displayed on the display unit of the offer collection terminal 2. As shown in Figs. 5A and 5B, the display form can be selected between the list form and the image form. When the display form is switched, the output

25 instruction is transmitted from the offer collection terminal 2 to the server 1. Also, the offer data may be displayed individually. In this case, when the

collector wants to view another offer data, a next

offer data instruction is transmitted from the offer

collection terminal 2 to the server 1. Thus, the next

offer data candidate is displayed on the display unit

5   of the offer collection terminal 2. In this way, the

collector can select one of the offer data candidates

which meets the determination value set as the

requested conditions or is the nearest to the request

conditions while switching the display forms of the

10 offer data candidates.

When any offer data candidate is not present

or all the offer data do not meet the requested

conditions, the collection is continued. Alternately,

the collector may change the determination value set

15 of the reference data using the offer collection

terminal 2. The changed determination value set is

written in the reference data 40 of the storage

section 12 of the server 1. When the change of the

determination value set is carried out, the

20 determination section 24 refers to the offer data once

again and carries out the determining process of the

step S308. Thus, when any storehouse data is inside

the new range of the determination value set, the

offer data is displayed on the offer collection

25 terminal 2. By repeating this operation, the time of

the wasteful reconsideration can be omitted.

When the offerer corresponding to one

selected from among the offer data candidates can

carry out the distribution business, the collector

orders the transportation of products or parts to the

distribution center terminal 6 associated with the

5   offerer. Thus, the products or parts can be

transported from or to the selected storehouse by a

truck.

As described above, according to the present

invention, the storehouse data can be automatically

10 determined by collecting the offers of the rental

storehouse on the network. Also, the offer which does

not satisfy the requested conditions can be

automatically determined. Thus, a wasteful time and

cost for determination of the storehouse can be

15 largely reduced.

Also, an output form is unified, so that the

comparison examination becomes easy.

Also, since an image is used for the input

form, an input mistake can be prevented.

20   Also, since the image data is inputted, the

information about the outward appearance of the

storehouse which can not be grasped from the numerical

data and the information about the industrial

environment around the candidates can be easily

25 confirmed.

Also, since the requested conditions contains

data indicative of whether the offerer can carry out

the distribution business, the offer is not necessary

to increase in whether or not it has the means of

providing the collection condition the entrusting

trader who carries out physical distribution business

5 To recruit the entrusting trader who carries out

physical distribution business apart from the

collection at the storehouse becomes not necessary.

There are business discussion time which was spent up

to this and an effect which the labor, the expense can

10 be substantially reduced.

What is claimed is:

1.   An offer collecting system for a desired

storehouse for keeping products and parts, comprising:

a server connected with a network and having a

5   storage section and a server display unit;

a plurality of offerer terminals connected with

said network; and

an offer collection terminal connected with

said server directly or through said network and

10   having a terminal display unit,

wherein said offer collection terminal sets

first and second collection condition sets in said

storage section of said server,

said server produces a storehouse offer

15   collection display based on said first collection

condition set to provide to said plurality of offerer

terminals by displaying said storehouse offer

collection display on said server display unit and

stores offer data from each of said plurality of

20   offerer terminals in said storage section,

said server compares said offer data from each

of said plurality of offerer terminals with said

second collection condition set, and determines said

offer data meeting said second collection condition

25   set as offer data candidates, and outputs said offer

data candidates to said offer collection terminal, and

said offer collection terminal displays said

offer data candidates and selects one of said offer

data candidates and determines said desired storehouse

corresponding to the selected offer data candidate.

5   2.   The offer collecting system according to claim

1, wherein said offer data includes numerical data and

image data.

3.   The offer collecting system according to claim

10   2, wherein said server outputs said offer data

candidates to said offer collection terminal such that

said numerical data of each of said offer data

candidates is displayed on said terminal display unit

in a list form and said image data of each of said

15   offer data candidates is displayed as an image on said

terminal display unit.

4.   The offer collecting system according to claim

1, wherein said storehouse offer collection display

20   contains a plurality of input screens to input data

for different items of said first collection condition

set.

5.   The offer collecting system according to claim

25   1, wherein said first collection condition set

includes whether an offerer of each of said plurality

of offer terminals can provide a distribution service.

6.   The offer collecting system according to claim 5, further comprising:

a distribution center terminal associated with the selected offer data candidate and connected with

5 said network,

wherein said offer collection terminal orders transportation of said products and parts to said determined storehouse to said distribution center terminal, and

10   said products and parts are transported by a truck to said determined storehouse based on an instruction from said distribution center terminal.

7.   The offer collecting system according to claim

15 1, wherein said offer collection terminal changes said second collection condition set, and

said server carries out the comparison, the determination and the output of said offer data candidates once again based on the changed second

20 collection condition set.

8.   The offer collecting system according to claim 1, wherein said server transmits an offer reception notice to said offer collection terminal in response

25 to said determination of said offer data candidates, and

said offer collection terminal issues an output

instruction in response to said offer reception

notice, and

said server outputs said offer data candidates

to said offer collection terminal in response to said

5   output instruction from said offer collection

terminal.

9.   A software product readable by a computer to

execute processing comprising:

10   a function of providing a storehouse collection

display based on a first collection condition set from

an offer collection terminal;

a function of receiving offer data and storing

in a database;

15   a function of comparing said offer data with a

second collection condition set, when said offer data

is received from each of a plurality of offerer

terminals;

a function of determining said offer data

20   meeting said second collection condition set as an

offer data candidate; and

a function of outputting said offer data

candidates to said offer collection terminal,

whereby one of said offer data candidates is

25   selected as a selected storehouse by said offer

collection terminal.

10.   The software product according to claim 9, wherein said offer data includes numerical data and image data.

5   11.   The software product according to claim 10, wherein said function of outputting comprises:

        a function of outputting said offer data candidates to said offer collection terminal such that said numerical data of said offer data candidates are

10 displayed on said offer collection terminal in a list form and said image data of a selected one of said offer data candidates is displayed on said offer collection terminal.

15 12.   The software product according to claim 9, further comprising:

        a function of transmitting an offer notice to said offer collection terminal in response to said determination of said offer data candidates.

20

13.   The software product according to claim 9, wherein said first collection condition set includes whether an offer of each of said plurality of offer terminals can provide a distribution service.

Abstract of the Disclosure

An offer collecting system for a desired storehouse for keeping products and parts, includes a server connected with a network and having a storage section and a server display unit; a plurality of offerer terminals connected with the network; and an offer collection terminal connected with the server directly or through the network and having a terminal display unit. The offer collection terminal sets first and second collection condition sets in the storage section of the server. The server produces a storehouse offer collection display based on the first collection condition set to provide to the plurality of offerer terminals by displaying the storehouse offer collection display on the server display unit and stores offer data from each of the plurality of offerer terminals in the storage section. Also, the server compares the offer data from each of the plurality of offerer terminals with the second collection condition set, and determines the offer data meeting the second collection condition set as offer data candidates, and outputs the offer data candidates to the offer collection terminal. The offer collection terminal displays the offer data candidates and selects one of the offer data candidates and determines the desired storehouse

corresponding to the selected offer data candidate.